	Application No.	Applicant(s)
Notice of Allowability	09/987,788	BRISSETTE, PATRICE
	Examiner	Art Unit
	Liang-che Alex Wang	2155
The MAILING DATE of this communication apperature All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIOF of the Office or upon petition by the applicant. See 37 CFR 1.313	ears on the cover sheet with the country (OR REMAINS) CLOSED in this ap or other appropriate communication is subject to	plication. If not included n will be mailed in due course. THIS
1. This communication is responsive to <u>amendment filed on 5/31/2006</u> .		
2. The allowed claim(s) is/are 1, 3-16 (renumberred as 1-15).		
3. ☐ Acknowledgment is made of a claim for foreign priority una) ☐ All b) ☐ Some* c) ☐ None of the:  1. ☐ Certified copies of the priority documents have 2. ☐ Certified copies of the priority documents have 3. ☐ Copies of the certified copies of the priority documents have	be been received. be been received in Application No	<del></del>
International Bureau (PCT Rule 17.2(a)).  * Certified copies not received:		
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.  4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.		
<ul> <li>5.  CORRECTED DRAWINGS (as "replacement sheets") must be submitted.</li> <li>(a)  including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached</li> </ul>		
1) hereto or 2) to Paper No./Mail Date		
(b) Including changes required by the attached Examiner's Paper No./Mail Date	s Amendment / Comment or in the C	
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).		
6. DEPOSIT OF and/or INFORMATION about the depo attached Examiner's comment regarding REQUIREMENT		
Attachment(s)  1. ☑ Notice of References Cited (PTO-892)  2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/0 Paper No./Mail Date	6. ☐ Interview Summary Paper No./Mail Da 98), 7. ☒ Examiner's Amendr	te
		PATRICE WINDER PRIMARY EXAMINER

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## **EXAMINER'S AMENDMENT**

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1. Claim 1, 3-16 are allowed.

- 2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
- 3. Authorization for this examiner's amendment was given in a telephone interview with David J. Greer (Reg. No. 43,395) on 7/26/06.
- 4. The application has been amended as follow:
- 1. (currently amended) A method for processing tandem connection monitoring information in a synchronous hierarchic network system, comprising:
- (a) receiving, at a network element, a frame containing tandem connection monitoring information including a plurality of TCM fields, each TCM field being associated with one of a plurality of tandem connection trails having trail terminations at the network element; and
- (b) extracting from the frame the associated tandem connection monitoring information for each of the plurality of tandem connection trails having trail terminations at the network element prior to; and
- (c) processing, in parallel, the tandem connection monitoring information for any of the tandem connection trails having trail terminations at the network element.
- 2. (cancelled) The method of claim 1 including processing the extracted tandem connection monitoring information associated with the tandem connection trails in parallel.
- 3. (original) The method of claim 1 wherein the tandem connection monitoring information associated with each of the tandem connection trails includes trail trace identification information.

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4. (original) The method of claim 3 wherein the trail trace information is broken up for transmission over a number of successive frames and includes source access point identifier information identifying a source of the tandem connection monitoring information.

- 5. (original) The method of claim 1 wherein the tandem connection monitoring information associated with each of the tandem connection trails includes a Bit-Interleaved Parity-8 (BIP-8) code computed at the source of each of the tandem connection trails based on payload information in a previously sent frame.
- 6. (original) The method of claim 1 wherein the tandem connection monitoring information associated with each of the tandem connections trails includes status bits carrying information indicating upstream conditions.
- 7. (original) The method of claim 1 wherein the number of tandem connection monitoring terminations at the network element is from two to six.
- 8. (original) The method of claim 1 wherein the frame includes a plurality of sub-fields each dedicated to carrying the tandem connection monitoring information associated with a predetermined tandem connection monitored trail.
- 9. (currently amended) A network element configured to:

be connected in a synchronous hierarchic network and,

receive signals containing tandem connection monitoring information including a plurality of TCM fields, each TCM field being associated with one of a plurality of tandem connection monitoring terminations occurring at the network element, and

further configured to extract, in parallel, from the received signals, independently for each of the tandem connection monitoring terminations occurring at the network element, the tandem connection monitoring information associated therewith.

10. (original) The network element of claim 10 wherein the network element is configured to extract the tandem connection monitoring information prior to any modification of data included in the received signals.

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11. (original) The network element of claim 10 wherein the received signals include frames having predetermined overhead locations dedicated to the tandem connection monitoring information.

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- 12. (original) The network element of claim 10 further configured to monitor in parallel the extracted tandem connection monitoring information associated with tandem connection monitoring trails terminating at the network element.
- 13. (currently amended) In a synchronous hierarchical network having multiple levels of tandem connection monitoring, a method comprising the steps of:
- (a) receiving at a network element a signal containing a frame having first tandem connection monitoring information in a first TCM field in respect of a first tandem connection monitoring trail terminating at the network element and second tandem connection monitoring information in a second TCM field in respect of a second tandem connection monitoring trail terminating at the network element; and
- (b) processing at the network element the first tandem connection monitoring information in parallel with the second tandem connection monitoring information.
- 14. (original) The method of claim 13 wherein the signal includes tandem connection monitoring information for more than two tandem connection monitoring trails terminating at the network element and all of the tandem connection monitoring information in respect of each of the terminating connection monitoring trails is processed in parallel at the network element.
- 15. (original) The method of claim 14 wherein the tandem connection monitoring information associated with each of the tandem connection monitoring trails includes trail trace identification information.
- 16. (original) The method of claim 15 wherein the trail trace information is broken up for transmission over a number of successive frames and includes source access point identifier information identifying a source of the tandem connector monitoring information.

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## Reason for allowance

5. The following is an examiner's statement of reasons for allowance: the prior art of record does not teach or suggest, individually or in combination, receiving a frame containing tandem connection monitoring information including a plurality of TCM filed, each being associated with one of plurality of tandem connection trails having trail terminations at the network element; and processing the tandem connection monitoring information in parallel in light of other features described in independent claims 1, 9 and 13.

- 6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
- 7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liang-che Alex Wang whose telephone number is (571)272-3992. The examiner can normally be reached on Monday thru Friday, 8:30 am to 5:00 pm.
- 8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571)272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
- 9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For

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more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)..

Liang-che Alex Wang り July 31, 2006

PATRICE WINDER
PRIMARY EXAMINER